Research on Strategies of Post-editing and Translation Teaching

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Abstract

With the introduction of artificial intelligence technology into the field of machine translation, the accuracy and efficiency of intelligent machine translation have been significantly improved, which is widely welcomed and used by college students. However, college students' excessive dependence and blind trust in machine translation also cause many problems. Machine translation is not a universal translator, and all languages can not reach the same translation level; Machine translation can not meet the requirements of long sentence translation; College students often make mistakes in using machine translation professional articles, which does not attract enough attention from college students; Therefore, when applying machine translation, college students must do a good job of post-translation editing, practice from easy to difficult, and gradually reach the translation standard of faithfulness, expressiveness and elegance.

Keywords

Machine Translation; Translation Teaching; Post-Editing.

1. Introduction

Machine translation is a process of transforming one natural language into another by computer. It is a branch of computational linguistics and one of the ultimate goals of artificial intelligence, and it has important scientific research value. The value of translation lies in building a bridge for communication and understanding among people of different languages and cultures, and promoting understanding and cooperation among ethnic groups, nationalities and races. If a person loses his language ability, he loses his basic human rights. At present, people who can only speak local dialects can only be regarded as members of a certain area, and their lives will be limited to a small area; A person who can only speak his own language only means that he is from a certain country. If a person can master the commonly used languages in international communication outside his own language, he can be considered as internationalized. This shows the importance of translation in human culture. Machine translation, as one of the achievements of computer science and technology, has made remarkable achievements in recent years. Especially after artificial intelligence is introduced into machine translation, computer-aided translation programs have the function of self-learning. With the continuous enrichment and expansion of translation information base, more and more translation information is stored in the information base, and its translation accuracy is greatly improved. Computer-aided translation programs can become "smart" through repeated use. People can input a large amount of content to be translated into the translation system, complete the translation at one time, and then edit it manually, which brings great convenience to translators.

2. Developments of Machine Translation

The history of machine translation can be traced back to the early 1950s. With the advent of the first computer, IBM701 automatically translated 60 Russian sentences into English, which is the first machine translation in history. In 1970, great progress was made in transformational generative grammar theory and AI technology, and machine translation entered a recovery period. Practical translation software systems have sprung up frequently. In 1980s, microcomputers with network connection and mass storage provided equipment conditions for machine translation. Translation tools such as electronic dictionaries, terminology databases and multilingual word processing came into being. For example, China has developed translation stars, elegant letters, full translation and scientific construction. For decades, scientists have tried various machine translation ideas and

methods. First, according to the regular machine translation ideas, they have tried direct translation, conversion translation and intermediate language. Secondly, the idea of machine translation based on examples; Thirdly, the machine translation system based on statistics. The above translation attempts are not satisfactory, and the mistranslation rate is very high. Until 2014, machine translation ushered in the biggest breakthrough of neural network machine translation. Neural network is not a new thing. In fact, it has been invented for more than 80 years. Neural network machine translation has made a breakthrough and become the absolute mainstream of modern machine translation. In 2015, computer recognition realized image recognition for the first time beyond human beings; In 2016, Google's neural machine translation system made a major technological breakthrough, and realized a simple and elegant solution of translating between multiple languages by using a single neural machine translation model in the field of machine translation. Compared with the previous statistical machine translation system, its translation error rate was reduced by more than 60% in English-French, English-Chinese, English-Western and other language pairs.

3. Problems of using Machine Translation by college students

There are many advantages of machine translation, such as saving manpower, cost and improving work efficiency. Moreover, the accuracy and readability of the translated text in the current market have been greatly improved compared with before. However, there are still limitations, such as people's emotions, cultural elements contained in the translated language, poetry, puns, tongue twisters and anti-expressions and mocking words can't be translated by machines. In the occasion of interpretation, the machine can't adapt to the sudden situation on the spot. Therefore, as a language learner, we should treat machine translation correctly, and we should not be afraid or rely on it completely. The quality of manual translation is much better than that of machine translation. Moreover, in the field of interpretation, one of the advantages of manual translation is that it can deal with some problems flexibly on the spot. For example, a story or a joke is suddenly interspersed in the speaker's conversation. If the story or joke involves the cultural elements in the target language or the target language, the machine cannot translate it, at least at present, but people can translate these cultural elements. Traditional translation teaching mode pays more attention to the analysis of sentence grammar and the mastery of translation skills. This can certainly train students' ability to analyze and translate sentences.

With the large-scale market investment of a large number of translation software and translation machines, more and more people use machine translation under the Internet conditions, and the ways are more and more convenient. Text translation, speech translation, scanned image translation and simultaneous translation of conferences are widely used in scientific research, teaching, tourism and international exchanges. The machine translation function of smart phones is especially popular and relied on by college students. College students are increasingly inseparable from machine translation in learning English, completing English homework, writing English abstracts, translating professional papers and consulting foreign language materials. College students' dependence on machine translation is also manifested in film and television entertainment. For example, when many college students watch foreign movies and play video games on mobile phones and computers, they will download corresponding language translation software at the same time.

Machine translation can not completely satisfy college students, mainly because of its own disadvantages. Its disadvantages are firstly manifested in that machine translation cannot be separated from pre-human translation materials, and intelligent neural network translators only look for the best matching translation in the pre-human translation database. Without the database of human translation materials, machine translation will be unable to do anything. Secondly, it is difficult for machine translation to solve the problem of semantic ambiguity, including lexical and grammatical ambiguity as well as ambiguity caused by cultural differences, especially semantic ambiguity is ubiquitous in cross-language communication. Language can't exist without the use scene of human beings, which shows that the implication of language comes from the past culture and shared memory.

Although machine translation has made great progress, the neural network system is based on the data set of manually translated works. If the data sets in some professional fields are not perfect, the machine translation will not be credible. In Chinese-English translation, it is mainly manifested in the fields of Chinese medicine, catering and law. Traditional Chinese medicine is a combination of medicine and Chinese traditional culture. The names of traditional Chinese medicines have Chinese characteristics, among which there are many unfamiliar words. Foreigners lack a comprehensive and profound understanding of the rich cultural connotations of traditional Chinese medicine, and their translation works in the treatment of traditional Chinese medicine are very limited. Therefore, the translation of traditional Chinese medicine by machines is unsatisfactory and mistranslations frequently occur.

4. Post-editing strategy

When college students use machine translation, it is necessary for foreign language educators to remind college students of the shortcomings of machine translation. In order to ensure the quality of translation, post-translation editing is essential.

Post-translation editing is a process of perfecting the content of machine translation through a small amount of manual modification, that is, editing the translation generated by the machine translation system after processing from the source language to the target language. The workload of post-translation editing may vary greatly. Although the introduction of artificial intelligence has made great progress in machine translation technology, due to the mechanical nature of translation software, machine translation will not have the flexible analysis and processing ability of manual translation for a long time. The translation quality produced by machine translation still cannot reach the accuracy of manual translation. In order to achieve the balance between translation quality and translation efficiency and give full play to the advantages of man-machine interaction, post-translation editing has become an active service mode adopted by the translation industry. As a necessary supplement to machine translation, post-translation editing is an important way to improve the quality of machine translation, and it is also an important representation of human-computer interaction translation. For college students, using machine translation can save translation time and get basic hints on English vocabulary and sentence patterns, which is a translation method that teachers encourage college students to use.

Compared with manual translation, machine translation software still needs to be improved, such as recognition errors in cognitive dimension, knowledge dimension and skill dimension, which must be reviewed and edited after translation. Post-translation editing is often influenced by the type of edited material, the quality of machine translation, the requirements and time of translation, and is generally divided into quick post-translation editing and complete post-translation editing. Among them, quick post-translation editing uses the original output of machine translation as much as possible, with emphasis on modifying the wrong translation parts, cultural differences and reorganizing the sentence structure without modifying the style of the translation. The goal of complete translation is correct grammar and punctuation, accurate translation, easy to understand and consistent style, with emphasis on accurate grammar, punctuation, spelling, translation and terminology, and maintaining cultural differences and consistent style.

In college students' English learning, in order to better promote post-translation editing of machine translation, first of all, college students should edit the translation of machine translation in order to achieve the standard of correct translation and clear expression; Secondly, if time and energy permit, college students should make advanced editing according to the language habits, characteristics and customs of the original text, edit the translation according to the basis of machine translation, and conceive to create a high-level translation with fluent language, accurate translation and writing in line with the language characteristics of the original text. For the basic editing content, the operating principles and editing strategies summarized by Cui Qiliang are adopted. First, pursue semantic translation to ensure that information is not accidentally added or deleted; Secondly, following the basic spelling principle, there is no need to change the author's language style; Third, use the original

machine to translate the content as much as possible, and don't reorganize the sentences smoothly for the text; Fourth, according to language habits, delete unreasonable or unconventional contents. For the content of senior editors, first of all, we should know more about the extended meanings and language habits of our own language and culture, and secondly, we should read more original English materials and feel the characteristics and differences between the two languages with heart. Some translations are literally different from the original text, but they reproduce the meaning of the original text well in terms of meaning, sentence pattern, pronunciation and language habits, and they are praised as "sincere and wonderful translation, a stroke of genius".

5. Conclusions

Machine translation and human translation have their own shortcomings. China's college English education has not paid enough attention to post-translation editing, and college students only refer to the target text when using machine translation, and pay no attention to the mistranslation and mistranslation of machine translation. This is extremely incompatible with the rapid development of "internet plus" machine translation technology. Artificial intelligence services in the information age have provided all-round support for manual labor. Especially, machine translation accelerates translation speed, improves translation efficiency and reduces translation intensity. However, in the aspect that machine translation cannot do, colleges and universities should train college students to use machine translation correctly and learn to think seriously, distinguish right from wrong and sum up experience.

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